Cancer

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Executive summary

Introduction

This chapter considerers the prevalence of cancer in Nottingham City, the prevention of cancer, cancer screening and treatment and palliative care services. The chapter also considers the inequalities related to cancer incidence and mortality. Key lifestyle risk factors such as smoking, obesity in adults and children, physical activity and alcohol, as well as End of Life Care are considered in separate chapters.

Cancer is a disease caused by normal cells changing so that they grow in an uncontrolled way. There are more than 200 different types of cancer. Cancer is now one of the biggest health challenges in the UK with one in three people expected to develop some form of cancer in their lifetime. Approximately 308,000 new cases of cancer are diagnosed each year in the UK with the most common cancers being breast, lung, colorectal and prostate cancers (Cancer Research UK, 2012). In Nottingham, there were 1,259 new cases in 2012.

The five main types of cancer are, skin, breast, lung, large bowel (colorectal) and prostate, which account for the 54% of all new cancers in England excluding the non-melanoma skin cancers.

Mortality from cancer is high with just under 141,600 deaths in England resulting from cancer in 2013 (HSCIC Indicator Portal). The incidence of cancer has remained stable for the past ten years and mortality rates have decreased illustrating the improvements in outcomes as we have gained a better understanding of the biological mechanisms of the evolvement of the different types of cancers.

Cancer is the highest cause of premature death in Nottingham City. Premature deaths are deaths that occur before a person reaches 75 years. Premature deaths account for 35% of all deaths and 47% of all cancer deaths and are therefore an important local health priority for Nottingham City (HSCIC Indicator Portal, all ages 1+, 2013). In the City, there are at least 5,521 people living with cancer (QOF registers 2014/15). This is based on the number of people on GP lists with a diagnosis of cancer recorded since 2003.

Unmet need and gaps

General

- The Independent Cancer Taskforce strategy 2015-2020 contains key recommendations to transform cancer care to meet and manage future demand for services
- Involvement of communities and patients is essential to ensure services are relevant and meet the needs of individuals and communities

Prevention

- Approximately 40% of cancers are preventable through healthy lifestyles and behavioural, however, Nottingham's population has high rates of smoking, obesity and other risk factors for cancer
- Most modifiable lifestyle risk factors such as smoking and obesity are higher in areas of deprivation.
- Smoking is the single largest preventable risk factor for cancer.
- There is significant community level resource which already has a role in promoting and supporting lifestyle changes. Opportunities could be taken to explore this work more specifically in a cancer prevention context, in order to enhance incorporate cancer health messages through making every contact count.

Early diagnosis

- Public awareness of the signs and symptoms of cancer and uptake of cancer screening opportunities are key factors in increasing the early detection and presentation of cancers, yet late presentation is high amongst those living in areas of deprivation and in certain BME communities.

Screening

- In Nottingham the uptake of bowel screening is poor and cervical screening is decreasing
- There is a lack of knowledge of the reasons for poor uptake of bowel screening in different communities
- There is a lack of information which describes who does not uptake screening which hinders efforts to increase uptake

Treatment

- Increasing incidence of cancer and early diagnosis guidelines will put a significant pressure on services to investigate and treat patients within agreed timescales
- Site-specific referral pathways lead to delays in full investigation and subsequent diagnosis for patients with non-specific symptoms

- There is a lack of data regarding stage of cancer at diagnosis available from providers. This makes targeting work to increase knowledge of signs and symptoms and promote early diagnosis in populations challenging to deliver and measure

Survivorship

There is gap in services to fully support all individuals living with and beyond cancer

Recommendations for consideration by commissioners

General

- Ensure full implementation of the Independent Cancer Taskforce strategy 2015 -2020
- Ensure community and patient engagement and involvement is a core component of commissioning and service activity

Prevention

- Support health improvement strategies and services that address key cancer risk factors in at-risk populations. This should include smoking, diet and nutrition, alcohol, physical activity and HPV vaccination programmes.
- Ensure local strategies, health improvement programmes and communications and make explicit the link between prevention factors and cancer risk; and should target 'at risk' groups
- Making Every Contact Count programmes should include clear cancer prevention, screening, symptom awareness and early diagnosis messages and be extended to include the community and NHS workforce, including screening providers and secondary care.

Early diagnosis

- Increase awareness of the signs and symptoms of cancer and promote early presentation to health services in different communities where incidence of cancer is high and late presentation is an issue.

Screening

- Increase the uptake of national cancer screening programmes – in particular bowel and cervical – working with GP practices and targeting and engaging populations groups where screening rates are lowest
- Undertake a health equity audit to understand the population and practice characteristics associated with low uptake of the bowel screening programme
- Undertake engagement work to understand the factors influencing variation in access to bowel cancer screening and early presentation to inform interventions to increase screening uptake

Treatment

- Ensure sufficient capacity within services to meet referral and treatment national targets and guidelines
- Address gaps in service pathways for patients with non-specific symptoms including the piloting of a multi-disciplinary diagnostic centre.

- Work with provider trusts and Public Health England to ensure regular and timely data regarding stage of cancer at diagnosis and route to diagnosis including ethnicity data
- Undertake a health equity analysis of route to diagnosis and staging data to identify target groups / areas to improve early diagnosis of cancer

Survivorship

- Meet the requirements set out in the Independent Cancer Taskforce strategy 2015-2020 for those living with and beyond cancer including:
    - Ensure full development and implementation of the Macmillan Cancer Support programme
    - Implementation of the recovery package in primary and community care
    - Consideration and development of recommendations from the Open Space event

Full JSNA report

What do we know?

1) Who is at risk and why?

There are a number of identified factors which are associated with an increased risk of the occurrence of cancer and / or likelihood of mortality from cancer. Whilst some of these factors are fixed and cannot be changed, e.g. sex and age, the majority are modifiable meaning that there is an opportunity for individual's to decrease their cancer risk. It is estimated that 42% of cancers could be prevented through changes to lifestyles (CRUK 2015).

Age

Age is the most important risk factor for cancer with risk increasing with age. Nearly two thirds of cancer diagnoses occur in the over 65s and one third in people aged 75 and over. Over half of all cancer deaths occur in people aged 75 and over (Department of Health 2011).

Genetic predisposition and family history

It is estimated that inherited factors cause up to 10% of all cancers (Cancer Research 2011). Factors such as the age at which a woman has her first child and the number of children she has, affect the risk of breast and gynecological cancers (Cancer Research 2011).

Lifestyle factors

There is strong evidence that the risk of cancer is associated with a range of lifestyle factors. In the UK, addressing these factors in the population would reduce the percentage of new cases of cancer each year by the following: smoking (19%), overweight and obesity (5%), diet and nutrition (fruit and veg (5%), red meat, (3%) fiber (2%), and salt (1%) consumption), alcohol consumption (4%). exposure to sunlight (3%), and physical activity (1%) (Parkin et al 2010).

Data from the Office of National Statistics (ONS) indicates that of all cancer-related deaths, almost 25–30% are due to tobacco and 30–35% are linked to diet.

Further information regarding these factors can be found in the following JSNA chapters at www.nottinghaminsight.org.uk : smoking, alcohol, diet and nutrition, obesity and physical activity.

Environmental and occupational exposures

People working in jobs e.g. agriculture, construction, manufacturing and mining industries, service industries that put them at risk of exposure to cancer causing chemicals (e.g. asbestos), prolonged outdoor working, or exposure to other risk factors (Parkin et al 2010).

Infectious agents

A small number of infectious agents, especially selected viruses such as Human Papilloma Virus (HPV) and Human Immunodeficiency Virus (HIV) play a role in causing certain types of cancer (Burd 2003).

Sex

Men are more at risk of developing cancer with rates 14% higher for males than females (Cancer Research UK, 2013): national data shows for the majority of common cancer sites, males have higher incidence rates than females when any difference in the age structure of the populations are taken into account. With certain causes of cancer being higher in males, such as smoking and exposure to asbestos, it is to be expected that lung, bladder and other smoking related cancers are also higher in males. However, higher rates for males are also seen in many other cancer sites. The mortality rate from cancer increases with age in both men and women and is higher in men at all ages (Cancer Research UK, 2013).

Ethnicity

The incidence and survival of different cancers varies by ethnicity. Whilst some of this risk difference is due to genetic factors, e.g. prostate cancer in black males, it is also influenced by cultural factors which are associated with exposure to lifestyle factors and access to health services including screening.

NCIN and CRUK (2009) undertook a review of cancer incidence and survival for major ethnic groups which found that (where ethnicity was recorded) generally people from the BME ethnic groups examined were at a significantly lower risk of getting cancer than the White ethnic group and there was no evidence for an overall inequality in cancer incidence. However, differences were found for some specific cancer sites:

- Males and females in the Asian, Chinese and Mixed ethnic groups all had significantly (between 20%-60%) lower risk of getting cancer than Whites when the all malignancies combined group was examined.
- Black females also were between 10% and 40% less likely to get cancer than females from the White ethnic group. In contrast, there was no evidence that Black males had differing risks compared with White males.
- The Asian ethnic group had significantly higher rates for three specific sites of cancer in comparison with the White ethnic group: liver cancer; mouth cancer (female); cervical cancer (in women aged 65 and over. Asians were at significantly lower risk of getting any of the four major cancers (breast, prostate, lung and colorectal).
- Asian women aged 15-64 years had significantly reduced survival from breast cancer than women from the White ethnic group at three years (89% and 91%, respectively)
- There were no significant differences between the survival of the Asians and Whites for colorectal cancer.
- Black males of all ages were significantly more likely to have a diagnosis of prostate cancer (ratios between 1.1 and 3.4 across the age groups/all ages) than White males.
- Black males and females were at significantly lower risk of getting three of the four major cancers (breast, lung and colorectal).

- Black women aged 15-64 years had significantly poorer survival from breast cancer at both one and three years than White women (85% compared with 91% at three years).

Deprivation

- Lifestyle risk factors including smoking and obesity, as well as access to health services including screening are strongly influenced by socio-economic deprivation. Consequently the risk of cancer and outcomes are strongly associated with deprivation.
- For all cancers diagnosed in 2006-10, oral cavity (m), larynx, liver (m) and lung cancer incidence rates in the most deprived group were at least double that of the least deprived group.
- Incidence rates of many other cancers are also statistically higher in the most deprived group compared to the least deprived group,
- The exceptions are breast cancer in women and prostate cancer in men where high rates are seen in more affluent groups. This is due in part to the higher uptake of screening and PSA testing respectively meaning more cancers are detected in these groups (NCIN 2014). Increased longevity associated with less deprived areas will also have an influence on this.

Vulnerable groups

- People with serious mental illness (SMI) are at greater risk of developing cancer than the general population due to a range of factors including lifestyle factors and uptake of screening programs (Cancer Research UK, 2014)

Historically the incidence of cancer in people with learning disabilities has been lower due to a shorter overall life expectancy, i.e. individuals die of other causes before developing cancer. However, this population tends to have a higher underlying risk of cancer due to: unhealthy lifestyles and low uptake of screening. Therefore as life expectancy increases in this group so will the risk of cancer. There is also some evidence to suggest that specific learning disabilities are associated with certain cancers, e.g. Down's syndrome and leukemia (Xavier et al. 2010).

2) Size of the issue locally

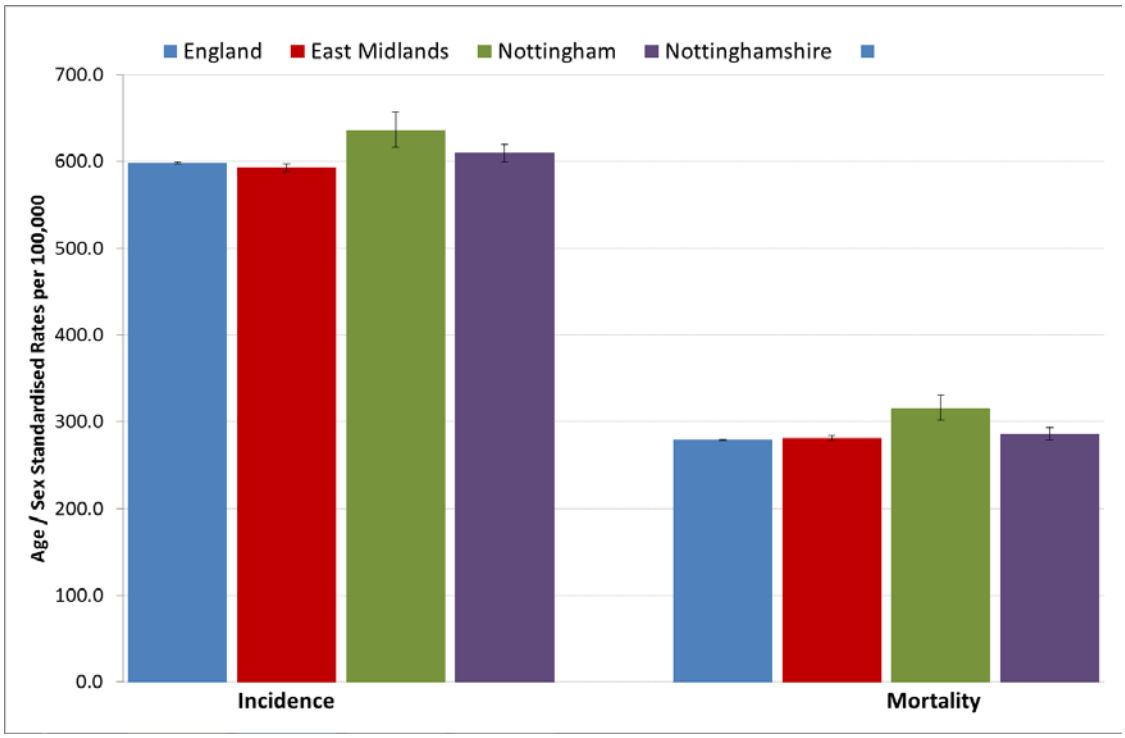
2.1 Cancer Incidence and Mortality

2.1.1 Overview

- In Nottingham City about 1,300 people are diagnosed with cancer each year (incidence) and 620 people die from the disease (mortality).
- In Nottingham City half of all cancer deaths occur before the age of 75 and cancer is the cause of a third of all deaths under 75 (premature deaths) (Public Health Mortality File, 2014).
- The incidence and mortality rate from cancer increases with age in both men and women and is higher in men at all ages (NCIN 2009-2013).
- Incidence rates for people newly diagnosed with cancer each year are statistically higher than the rates for England and the East Midlands. (see figure 2.1)

- Nottingham mortality rates are also significantly higher than the average for England and the East Midlands (see Figure 2.1).

Fig 2.1 Nottingham cancer incidence and mortality rates compared to England and East Midlands.

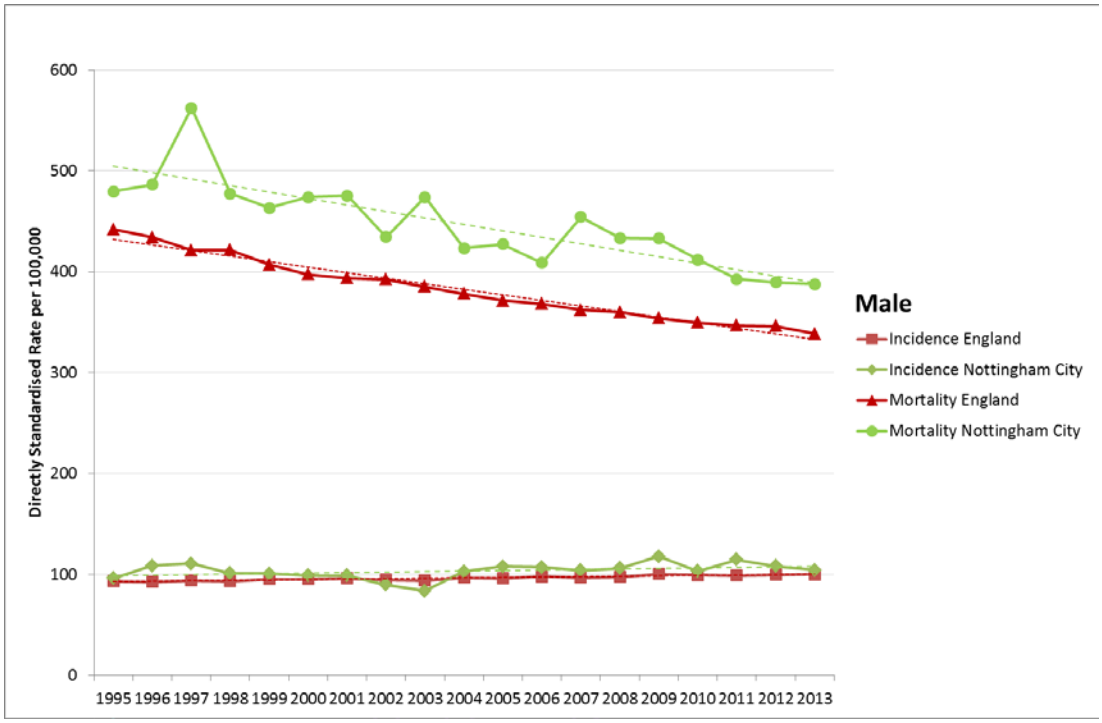


Source: Health and Social Care Information Centre Indicator Portal, Incidence 2011-2013; Mortality All Cancers, 2011-2013

2.1.2 Trends in cancer incidence and mortality

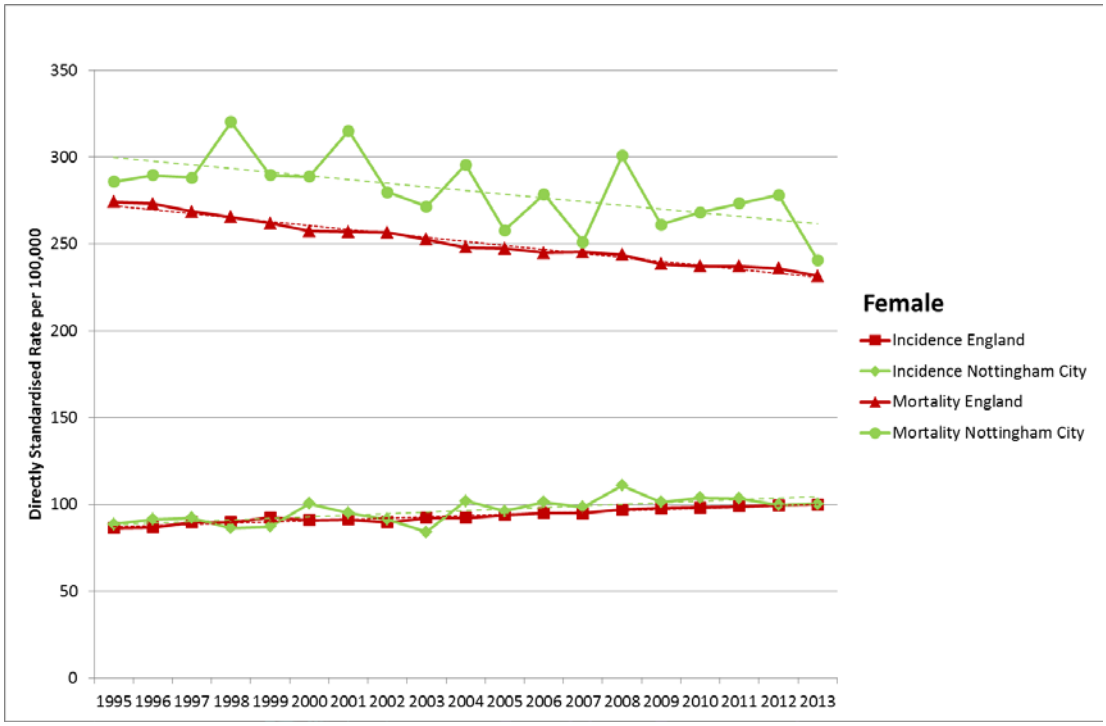
In both men and women cancer death rates are falling and incidence is rising, reflecting an aging population, increased diagnosis and improvements in survival (figure 2.4 and 2.5). Incidence of cancer in men is increasing at around 1.3% per year and 4.4% in women. However, mortality rates are falling more slowly in women than in men at 1.5% per year compared to 4.3% in men. This picture is reflected both locally and nationally.

Figure 2.4 Incidence and Mortality trends in Males in Nottingham, All Cancers



Source: Health and Social Care Information Centre Indicator Portal, 1995-2013

Figure 2.5 Incidence and Mortality trends in Females in Nottingham, All Cancers



Source: Health and Social Care Information Centre Indicator Portal, 1995-2013

2.2 Incidence by cancer type

Skin cancers are the most common form of cancer but most of these are easily treated basal cell and squamous cancers, caused by sun damage. Only a small proportion of skin cancers are malignant melanoma. Prostate cancer is the next most common cause of cancer followed by breast cancer, lung cancer and bowel cancer (HSCIC).

Table 2.1: Incidence of most common types of cancer per 100,000 population in Nottingham and England, all ages, 2011– 2013

		Incidence per 100,000		
Cancer Type	**Area**	**Male**	**Female**	**Number per year**
Breast	England	-	166.4	43,128
	Nottingham	-	156.5	173
Prostate	England	179.5	-	38,158
	Nottingham	185.1	-	162
Lung	England	94.7	64.4	36,446
	Nottingham	138.4	75.3	199
Colorectal (Bowel)	England	58.3	38.8	20,926
	Nottingham	93.8	60.3	152
Bladder	England	31.5	9.3	8,919
	Nottingham	31.8	9.3	37
Stomach	England	18.0	7.5	5,721
	Nottingham	27.7	11.3	36
Oesophagus	England	22.6	8.9	7,179
	Nottingham	24.6	10.2	33
All skin cancer*	England	256.1	163.4	100,959
	Nottingham	178.7	107.0	275
Malignant melanoma	England	25.6	22.6	11617
	Nottingham	17.7	13.8	34
All Cancers	**England**	**680.7**	**539.7**	**286,555**
	Nottingham	**751.8**	**555.4**	**1299**
All cancers under 75 years	**England**	**433.7**	**399.3**	**182,805**
	Nottingham	**491.6**	**415.4**	**840**

***Breast cancer in men is rare and has been excluded.*

Source: Health and Social Care Information Centre Indicator Portal, Incidence 2011-2013

**All Skin Cancer; 2010-2012*

2.3 Mortality from cancer

The most common cancers causing death are lung cancer; bowel cancer, prostate cancer in men and breast cancer in women. Skin cancers, other than malignant melanoma, very rarely cause death. Cancer is responsible for around 25% of all deaths and is the second highest cause of death in BME groups (Macmillan 2014) In England, 47% of all cancer deaths are in people under 75 years compared to 50% in Nottingham City (HSCIC, 2015).

Table 2.3 Mortality from most common types of cancer (Directly Standardised Rate per 100,000 (2011-2013); Nottingham City and England

		Male		Female	
Cancer Type	Area	Number	Mortality per 100,000	Number	Mortality per 100,000
Breast	England	-	-	28,945	36.2
	Nottingham	-	-	132	38.6
Prostate	England	27,442	49.1	-	-
	Nottingham	105	44.3	-	-
Lung	England	47,103	75.7	37,921	48.6
	Nottingham	250	96.8	168	52.5
Colorectal	England	22086	36.3	18,874	23.1
	Nottingham	116	44.5	76	22.3
Bladder	England	8644	15.0	4,183	5.0
	Nottingham	40	16.4	26	7.9
Stomach	England	7338	12.1	4,205	5.2
	Nottingham	43	17.2	20	5.9
Oesophagus	England	12,851	20.3	6,012	7.4
	Nottingham	69	25.9	23	7.3

Source: Health and Social Care Information Centre Indicator Portal, Incidence 2011-2013

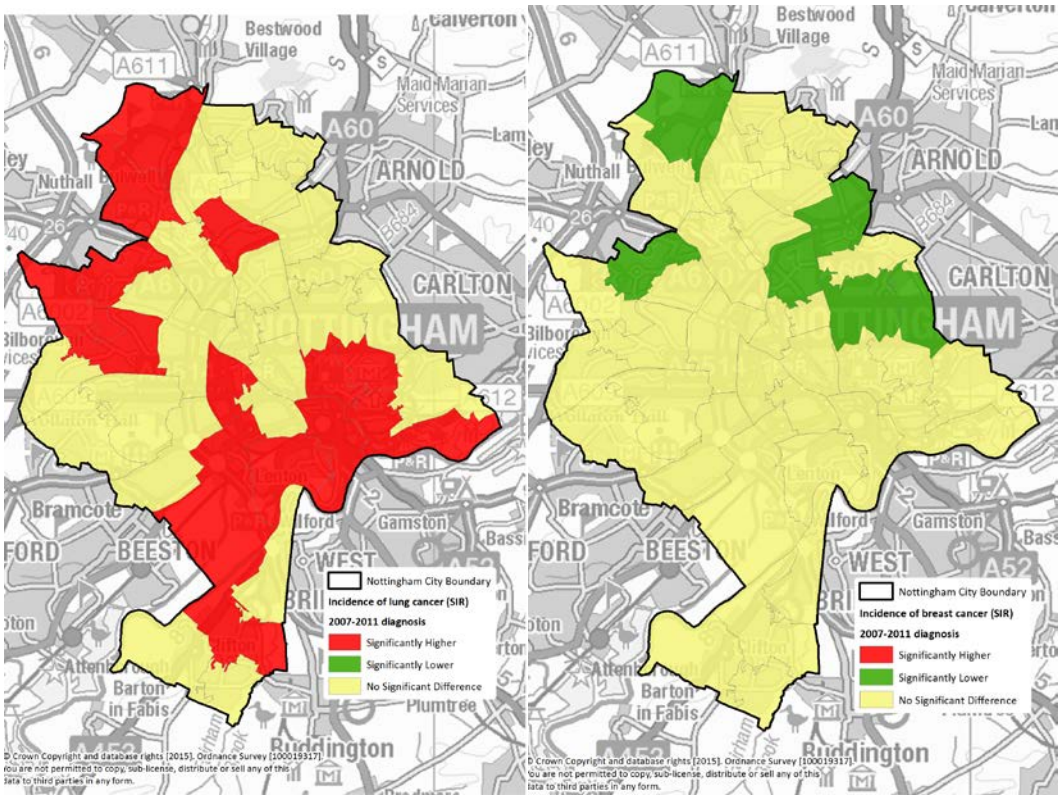
**Breast cancer in men is rare; figure given is UK mortality rate.*

Source: Source: Health and Social Care Information Centre Indicator Portal: https://indicators.ic.nhs.uk/webview/

Incidence and mortality rates from cancer vary across the City. Figure 2.3 shows areas of the city where a) lung cancer incidence is significantly higher than the England average and b) incidence of breast cancer is similar or lower than the England average.

Lung cancer is closely associated with smoking which in turn, is more prevalent in areas of high deprivation. Nottingham City is one of the most deprived cities in England and this has high prevalence of both smoking and lung cancer. In contrast, breast cancer tends to be more common in more affluent levels; incidence is lower in Nottingham than England and as figure 2.3b shows, there are no areas within the city with higher than average breast cancer incidence.

Figure 2.3 Incidence of a) lung cancer and b) breast cancer in Nottingham City



Source: Incidence of lung cancer and breast cancer, MSOA, 2007-2011; Local Health, PHE, 2015

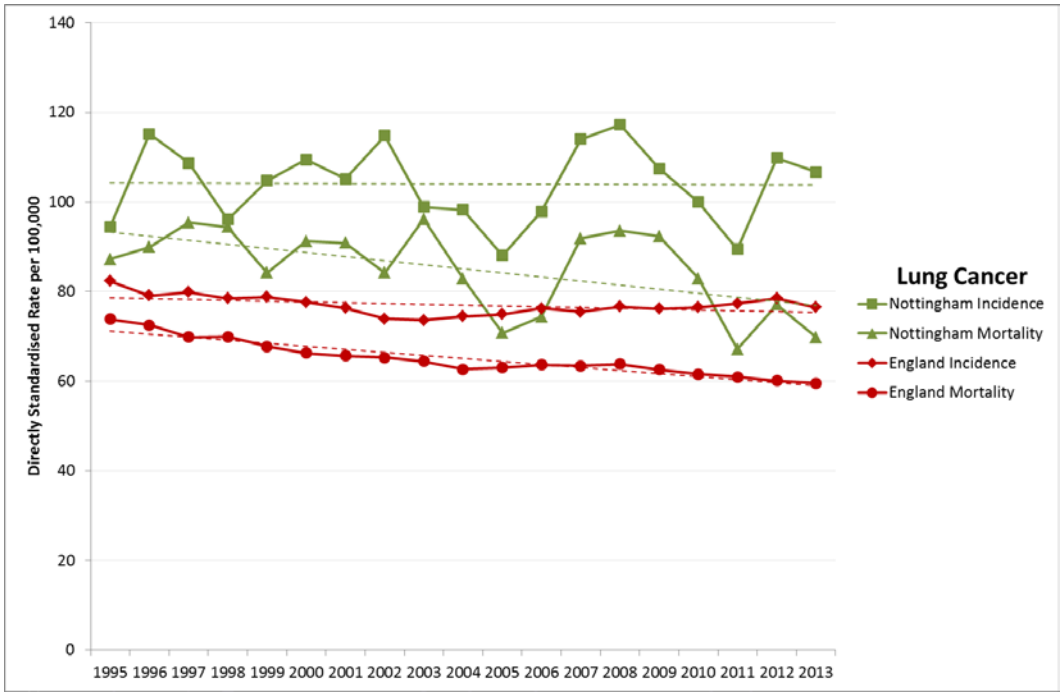
2.4 Incidence and mortality of specific cancers

2.4.1 Lung cancer

Incidence of lung cancer in Nottingham City is significantly higher than the national and regional average in both men and women due to high smoking prevalence. In 2014, smoking prevalence in Nottingham was 27% (Citizens Survey Nottingham City Council) as compared to the England national average of 19% (HSCIC, Statistics on Smoking, 2015).

Mortality from lung cancer is falling, reflecting reductions in smoking prevalence (figure 2.6) although incidence rates remain level. Peaks in incidence may be related to improve awareness and national campaigns such as Be Clear on Cancer which encourage people to visit their doctor if worried about signs and symptoms of lung cancer.

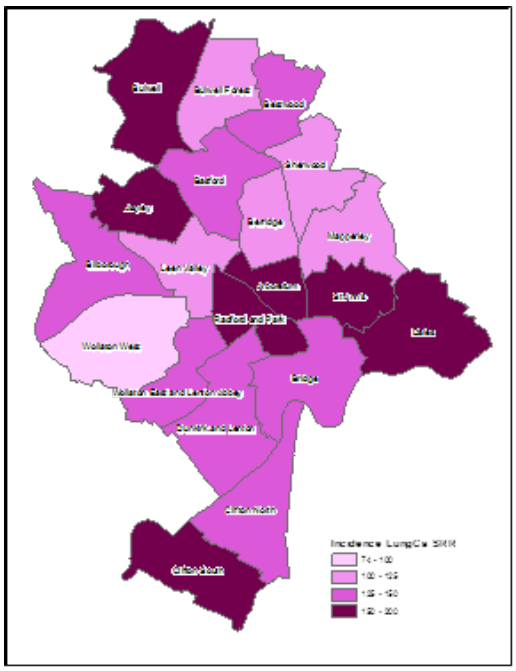
Figure 2.6 Incidence and mortality from Lung Cancer (All Persons, All Ages) in Nottingham City

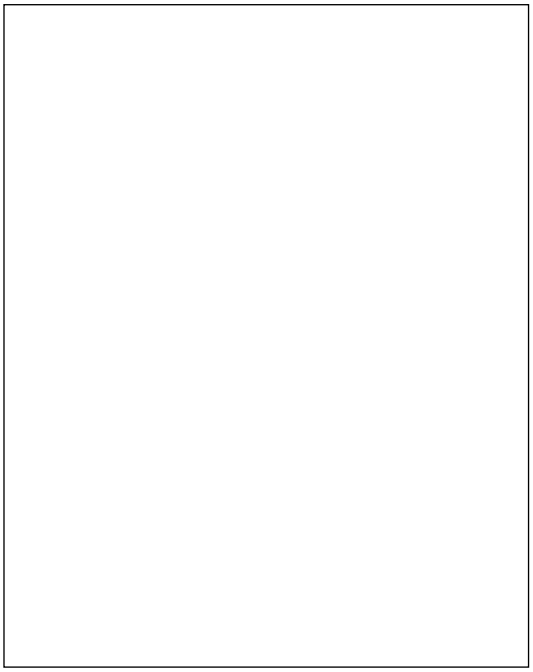


Source: Health and Social Care Information Centre Indicator Portal, 2015

Lung cancer levels are higher in the more deprived area of the city and there is a clear correlation between deprivation, smoking prevalence and lung cancer incidence (figure 2.7). The maps in figure 2.7 demonstrate the close relationship between smoking and lung cancer incidence, with the areas in the north and east of the city having the highest smoking prevalence and lung cancer incidence rates and also the highest levels of deprivation.

Figure 2.7 Lung Cancer Incidence and Smoking Prevalence by Ward



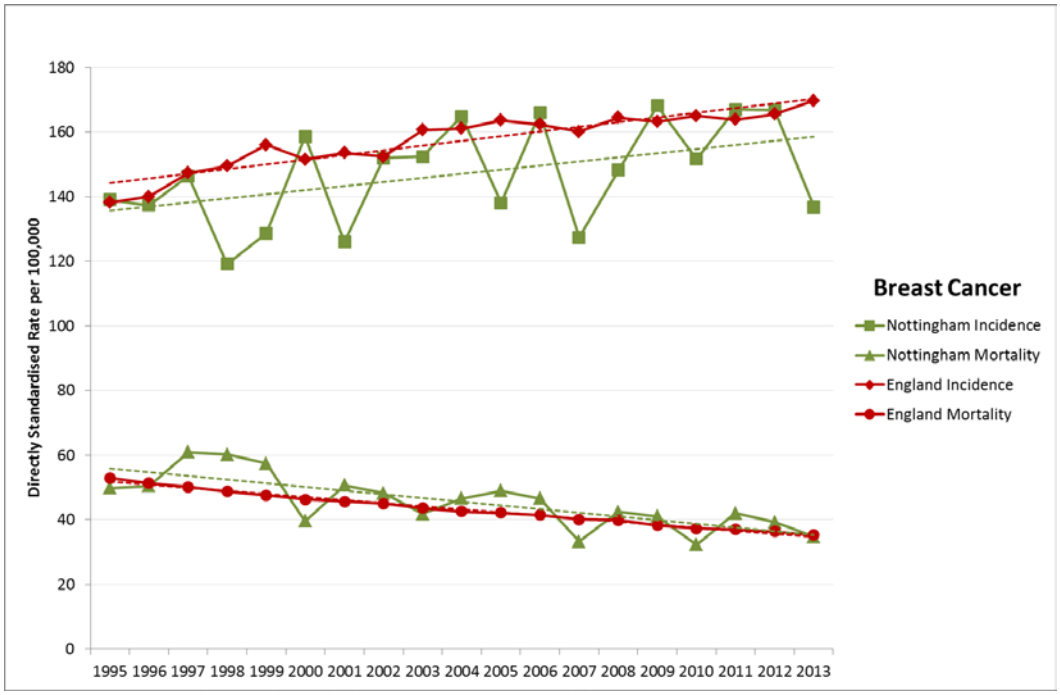


Source: Smoking Prevalence: Citizens Survey pooled 2010-2012; Cancer Incidence: New cases of lung cancers, standardised registration ratio, 2005-2009.

2.4.2 Breast Cancer

Breast cancer is one of the few cancers where incidence rates are lower in deprived areas. Local rates are similar to national and regional rates. Incidence of breast cancer is increasing (see figure 2.8), this is perhaps due to improved screening uptake and greater awareness of symptoms. Mortality rates are falling due to factors such as early diagnosis and cancer staging.

Figure 2.8 Incidence and mortality from Breast Cancer (Females, All Ages) in Nottingham City [add England figures?]



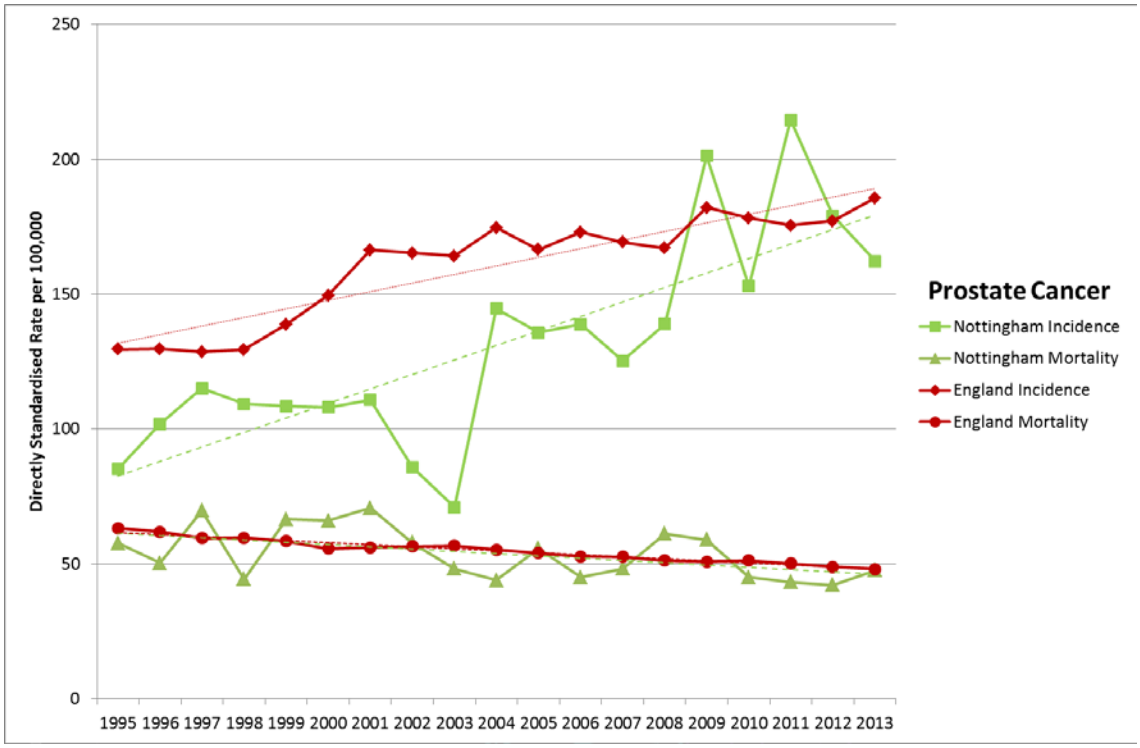
Source: Health and Social Care Information Centre Indicator Portal, 2015

2.4.3 Prostate Cancer

Incidence of prostate cancer in Nottingham City is similar to the national and regional average. The incidence of prostate cancer has risen sharply in recent years (figure 2.9). The increase in incidence is most likely due to the increased awareness of this disease and early diagnosis using the PSA (Prostate Specific Antigen) test. Mortality rates are falling slowly, however current evidence is inadequate to recommend a national screening programme as the PSA test has not been proven to be effective enough and does not identify a large proportion of men who in fact have prostate cancer.

A positive test will lead in most cases to a biopsy, which often does not give a definitive answer and leads to anxiety and to further investigations. However, there has been much debate among health professional as to the effectiveness of the PSA test and the UK National Screening Centre recommendation on prostate cancer screening/PSA testing in men over the age of 50 in now currently under review (Macmillan 2014).

Figure 2.9 Incidence and mortality from Prostate Cancer (All Persons, All Ages) in Nottingham City



Source: Health and Social Care Information Centre Indicator Portal

2.4.4 Bowel Cancer

The incidence of bowel cancer in Nottingham is not significantly different to England or the East Midlands. There is no clear association between incidence rate and deprivation. Incidence is much higher in men than in women. Figure 2.10 illustrates incidence rates for bowel cancer have risen but it is unclear whether this is associated to the introduction of screening in 2008 or due to the increase in the number of older people, as bowel cancer increases significantly with age. Mortality rates are falling slowly at around 1% per year.

Although incidence of bowel cancer is not significantly different to England or the East Midlands, the uptake of the bowel cancer screening is lower in Nottingham than the national average of 60%, with 19 GP practice significantly lower with uptake ranging from 35% - 49%, this will be discussed in more detail in section **(4.)**

Figure 2.10 Incidence and mortality from Bowel Cancer (All Persons, All Ages) in Nottingham City



Source: Health and Social Care Information Centre Indicator Portal, Incidence 2009-2011; mortality 2010-2013

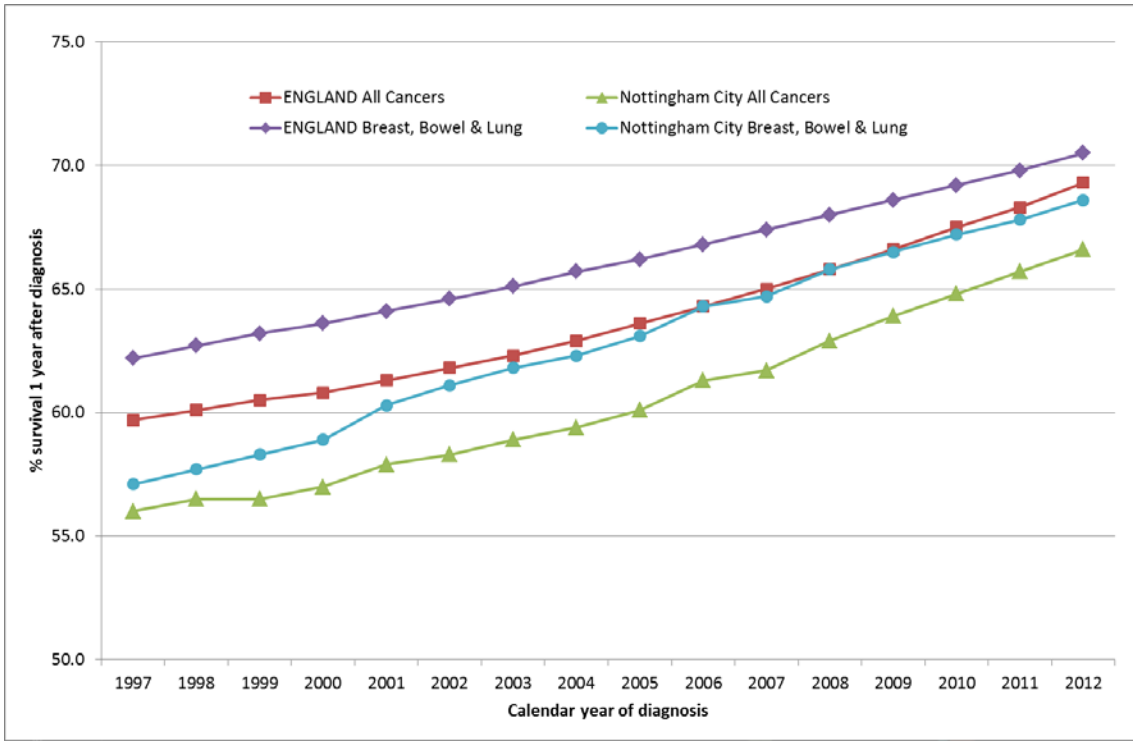
2.6 Survivorship with, and beyond, cancer

Nationally and locally, survival with cancer is improving gradually. Over 90% of women with breast cancer survive one year and over 80% survive 5 years. One year survival for prostate cancer is similarly 90% and 5 year survival 75-80%. Nottingham City has significantly poorer survival rates for cancer, with one year survival rates for all cancers significantly lower than England, 66.6% compared to 69.3% (NCSI 2014).

There are 5,521 people in Nottingham City currently living with cancer (QOF 14/15); 1.53% of the population. This is based on the number of people on GP lists with a diagnosis of cancer recorded since 2003.

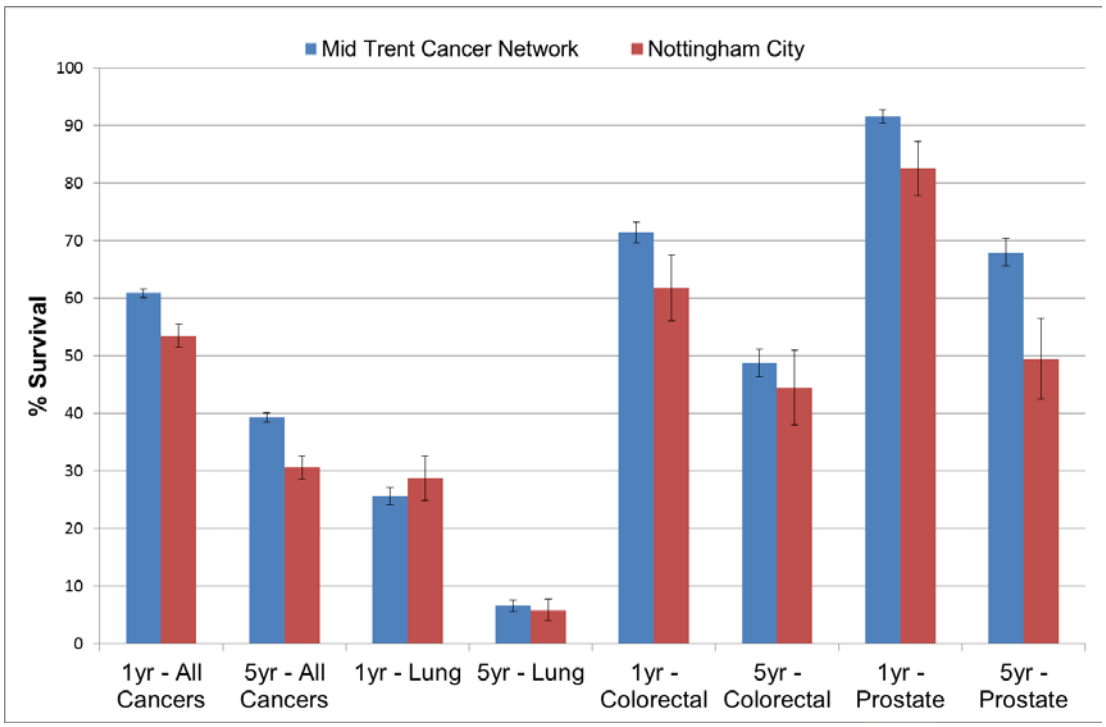
Figure 2.17 shows the improvement in 1-year survival in Nottingham compared to England. Nottingham City has poorer survival at 1 year than England for all cancers though the gap between England and the city appears to be closing. Nottingham has made better progress with the 3 major cancer sites, with survival after 1 year for breast, bowel and lung cancer combined closing the gap between the city and England.

Figure 2.17 Trend in 1- year survival from all cancers and three cancers combined (breast (women), colorectal and lung), all adults age 15-99 years



Source: ONS, Index of cancer survival for Clinical Commissioning Groups in England, Adults diagnosed 1997–2012 and followed up to 2013.

Figure 2.18 One and five year survival rates (15-99 years); patients diagnosed 2002-2006)



Source: Cancer Fact Sheet
http://www.empho.org.uk/Download/Public/10923/1/Notts%20City_1.pdf

Source: Trent Cancer Registry, Cancer Fact Sheet, http://www.empho.org.uk/Download/Public/10923/1/Notts%20City_1.pdf

Figures 2.18 show the survival rates for the more common cancers for men and women, comparing Nottingham City with the Trent Cancer Network area. Cancer survival rates are slightly better for women overall. This may be due to good survival rates for breast cancer. Generally, survival rates for men in Nottingham are worse than the Trent Cancer Network though similar for lung cancer at 1 and 5 years and for 5 year bowel cancer. Survival rates for women compare well with survival rates for the Trent Network. Lung cancer survival remains poor at both 1 and 5 years (National Cancer Intelligence Network, 2012).

3) Targets and performance

Public Health Outcomes Framework

Cancer and related outcomes are described within the Public Health Outcomes Framework; please visit: http://www.phoutcomes.info/public-health-outcomes-framework#gid/1000049

NHS Outcomes Framework

NHS England's NHS Outcomes Framework describes the 5 domains of the NHS for people with Long Term Conditions. The NCSI recommendations and approaches to supporting people to live with and beyond their cancer diagnosis, aligns with the National Long Term Conditions programme, through several key recommendations;

1. Access to Information and Support from the point of Diagnosis
2. Promoting Recovery
3. Sustaining Recovery
4. Managing the Consequences of Treatment
5. Supporting people with active and advanced disease
6. Improving Survivorship Intelligence.

Cancer Taskforce strategy 2015-2020

The Cancer Taskforce Strategy outlines the following initiatives and ambitions:

1. An additional 30,000 patients per year surviving cancer for ten years or more by 2020, of which almost 11,000 will be through earlier diagnosis;
2. A closing of the gap in survival rates between England and the best countries in Europe and elsewhere;
3. Better integration of health and social care such that all aspects of patients' care are addressed, particularly at key transition points;
4. Cancer patients feeling better informed, and more involved and empowered in decisions around their care;

5. A radical improvement in experience and quality of life for the majority of patients, including at the end of life;
6. A reduction of the growth in the number of people being diagnosed with cancer;
7. A reduction in the variability of access to optimal diagnosis and treatment and the resulting inequalities in outcomes;
8. Significant savings which can be re-invested to cope with increases in demand and to achieve further improvements in outcomes.

Clinical Commissioning Group Improvement and Assessment Framework 2016/2017

NHS England is introducing a new Improvement and Assessment Framework for CCGs from 2016/17 onwards, to replace both the existing CCG Assurance Framework and separate CCG performance dashboard. See below for the range of cancer and related outcomes within the frame work:

- 9a Cancers (all) diagnosed at stage 1 and 2 (with supporting measure of % of cancers with staging data) Diagnosis at an early stage dramatically improves survival chances
- 9b People with urgent GP referral having first definitive treatment for cancer within 62 days of referral. Shorter waiting times improve patient experience and can lead to better outcomes
- 9c One year survival from all cancers. Improving cancer survival is a key plank of improving cancer outcomes
- 9d Cancer patient experience is key component of the strategy to achieve world-class cancer outcomes.

4) Current activity, service provision and assets

Overview

Macmillan Cancer Partnership in Nottinghamshire

The Macmillan Cancer Partnership in Nottinghamshire is a pioneering programme which aims to improve local cancer services and address the growing number of people surviving and living with and beyond a cancer diagnosis. This three million pound cancer improvement programme aims to radically transform cancer care across Nottinghamshire. The partnership Comprises of Nottinghamshire health and social care services, Macmillan and other local voluntary organisations. The programme includes 14 individual projects and pilots all aimed at testing, improving and developing new ways to support people affected by cancer, the projects are set up to deliver the following overarching themes:

1. Prevention and diagnosis,
2. Treatment and recovery
3. Living with and beyond cancer
4. End of Life Care

Full details of the Macmillan Cancer Partnership and details of all of the projects can be accessed:
http://www.macmillan.org.uk/Aboutus/Healthandsocialcareprofessionals/Macmillansprogrammesandservices/MacmillanCancerPartnershipinNottingham.aspx

Nottingham City Clinical Commissioning Group

Nottingham City CCG is working to improve Primary Care access to diagnostic testing, working with communities to identify barriers to screening, supporting the City Council in health promotion activities, commissioning better acute cancer services including discharge from care, implementing the survivorship agenda by incorporating cancer into the remit of the Care Delivery Groups, and enabling greater access to end of life care and support, The main projects include:

- An audit of cancer diagnoses in primary care to identify best practice and areas for improvement
- Recruitment of 2 Macmillan GPs and a Project Manager who will build the capacity of practices and local people to support members of their local community to recognise the early symptoms of cancer so that they present earlier to their GPs where they suspect they have cancer symptoms
- A research project designed to identify barriers to bowel screening in BME communities
- Tumour site pathway development focussing on treatment follow up and survivorship linking with Care Delivery Groups
- Implementation of the Electronic Palliative Care Coordination scheme across Nottinghamshire.

Nottingham City Council Neighbourhood Locality Teams

A programme of work is being undertaken to ensure cancer is a priority at a local level and features in neighbourhood ward plans. This is being achieved through partnership working with key stakeholders to include McMillian, CCG public health and NCC neighbourhood teams.

The BME Cancer Network

The BME cancer Network is a social enterprise which aims to address cancer inequalities within black and minority ethnic (BME) and low income communities. One of the enterprise's most recent reports (Hear Me Now 2013) highlights the greater incidence and mortality due to the 30% increased risk of prostate cancer in black African-Caribbean men. The Network is working with the CCG and other partners to raise awareness among professionals and in the community and to promote early identification and diagnosis of prostate cancer and to provide on-going support to those affected by the disease.

The Hear me Now reports can be assessed at:

http://www.bmecancer.com/index.php/cancers/prostate-cancer/82-hearmenow

Self-help groups

1. Friends and Bredrins (FAB)

FAB is a self-help group for black men (but not exclusively) who have, or have experienced, cancer and for those who have been recently diagnosed. FAB offers a chance to share experience and advice, to combat isolation, whilst providing emotional support for those who have had a traumatic experience. The group has professional links with the Urology department at the Nottingham University Hospitals NHS Trust, and with BME Cancer Communities. Further information is available at:

http://www.nottshelpyourself.org.uk/kb5/nottinghamshire/directory/service.page?id=DU5d_PjBKi0

Prevention and Early Diagnosis

See relevant JSNA chapters for smoking, obesity, alcohol, diet and nutrition and physical activity.

Change Maker Volunteer Programme

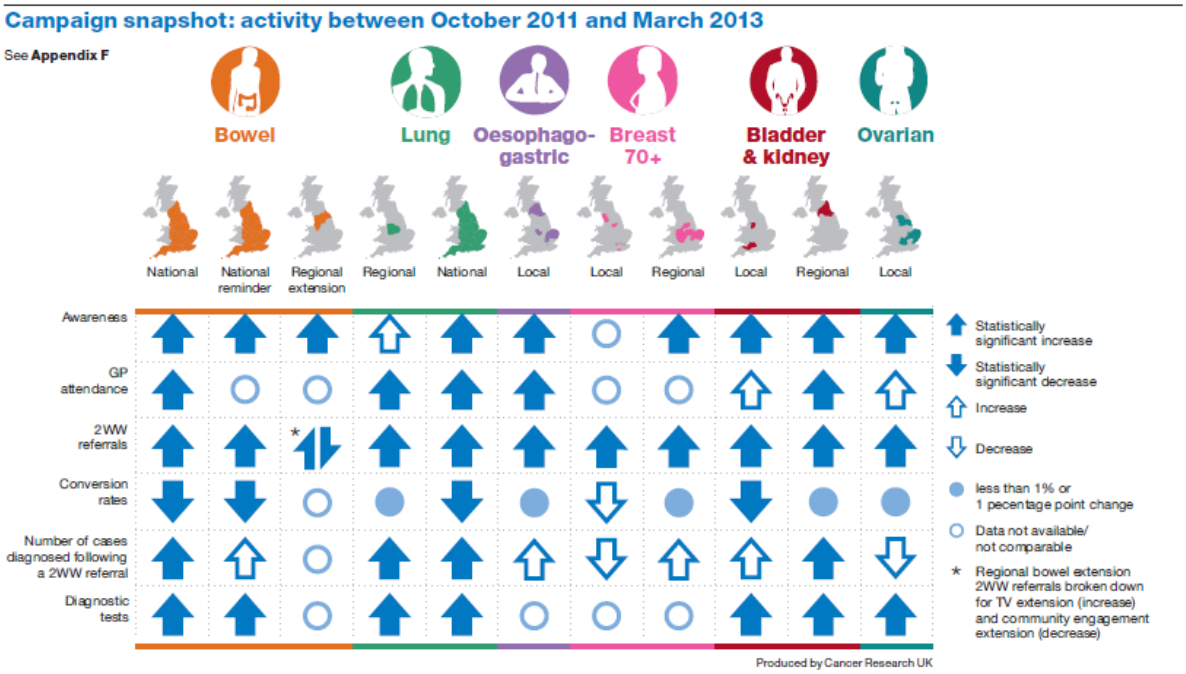
Change Makers are local people who volunteer in their community to raise awareness of the signs and symptoms of the four most common cancers in Nottingham City, lung bowel, breast and prostate, with the aim of increasing early presentation, reducing late diagnosis, increasing access to screening and addressing health inequalities. The Change Makers utilise an innovative approach to working with the City's most deprived communities through empowering local people and developing solutions to overcome health issues and challenges. One of the most successful approaches of the programme is the use of drama to deliver health messages around the signs and symptoms of cancer to people from diverse cultural and religious backgrounds from across Nottingham. In April 2015 the Change Makers established as an independent group and are being hosted by an established local voluntary/community sector organisation that is providing support to the group to become fully independent and self-governing. (NCC Summary of the Change Maker programme 2013)

Public Health England Be Clear on Cancer Campaigns

Be Clear on Cancer is an overarching campaign aimed at raising awareness of the signs and symptoms of cancer and prompting those with relevant symptoms to visit their doctor. It is run by Public Health England in partnership with Cancer Research UK

The national campaigns are evaluated to understand awareness of cancer advertising and symptoms, beliefs and attitudes towards cancer and early diagnosis and knowledge and recognition of the relevant campaign material. The following graphic from Cancer Research UK (2014) provides a snapshot of the impact of the campaigns.

Figure 3.1 Evaluation of Be Clear on Cancer campaigns



Cancer Research UK (2014) available at

http://www.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@hea/documents/generalcontent/cr_119405.pdf

Figure 3.1 illustrates the campaigns have been associated with improved awareness; GP attendance and 2 week wait referrals. In Nottingham work is on-going to ensure a local response to link up with and enhance the campaigns through displaying campaign resources in GP practices, pharmacies, leisure centres, libraries and community centres. While this approach has been useful in raising the profile of the campaigns within target groups, the CCG are working with Macmillan and other key stakeholders to develop local health improvement programmes and associated communications and social marketing messages to make explicit the link between prevention factors, cancer risk and the importance of screening.

Screening

Cancer screening is a process of identifying apparently healthy people who may be at increased risk of the disease, to detect if there are any early physiological changes which match with recognised signs of a cancer growth. The DH report 'Improving Outcomes: A Strategy for Cancer recognised that cancer screening was an important way to detect cancer early. Over 5% of all cancers are currently diagnosed via screening.

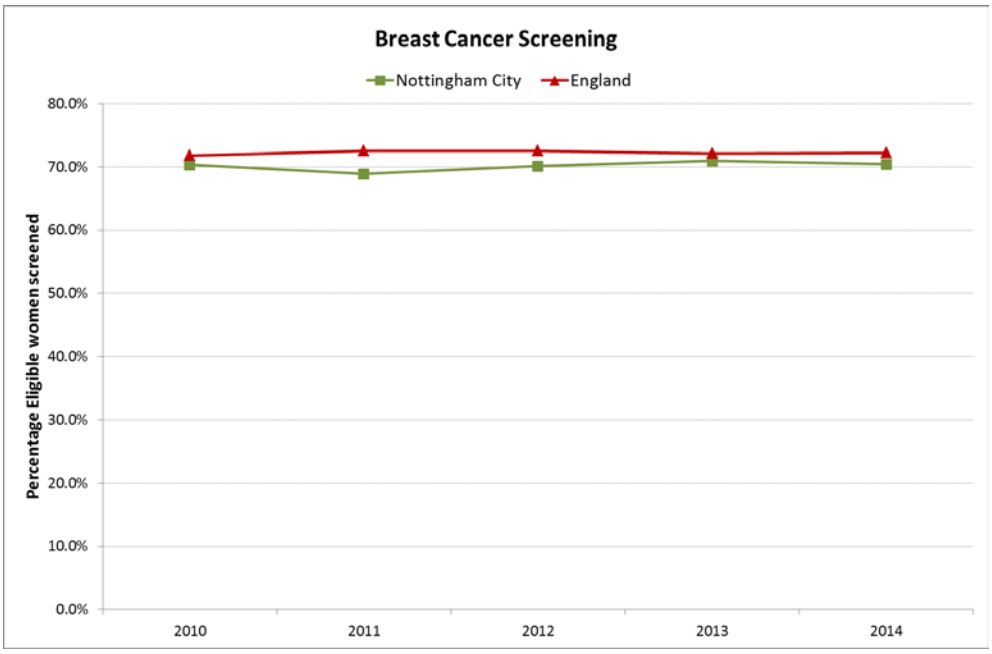
The NHS has three national cancer screening programmes, breast, cervical and bowel. The sections below seek to highlight the populations who are not attending for screening services and opportunities.

Breast Cancer

The NHS Breast Screening Programme invites women aged 50–70 years for screening every three years, although there is a phased roll out currently underway to extend this from age 47 to 73. A third of breast cancers are now diagnosed through screening (NCIN 2009).

Figure 3.2 shows breast screening uptake in Nottingham City is slightly lower than the national average (70.4% compared to 72.2%) and just exceeds the national standard of 70% coverage. Sixteen of the 61 practices (in 2014) had uptake rates significantly lower than the England average with uptake ranging from 53.9% to 66.2%.

Fig 3.2 The percentage of women in the population eligible for breast screening who were screened adequately within the previous three years on 31 March



Females, 50-70, screened for breast cancer in last 36 months (3 year coverage, %).

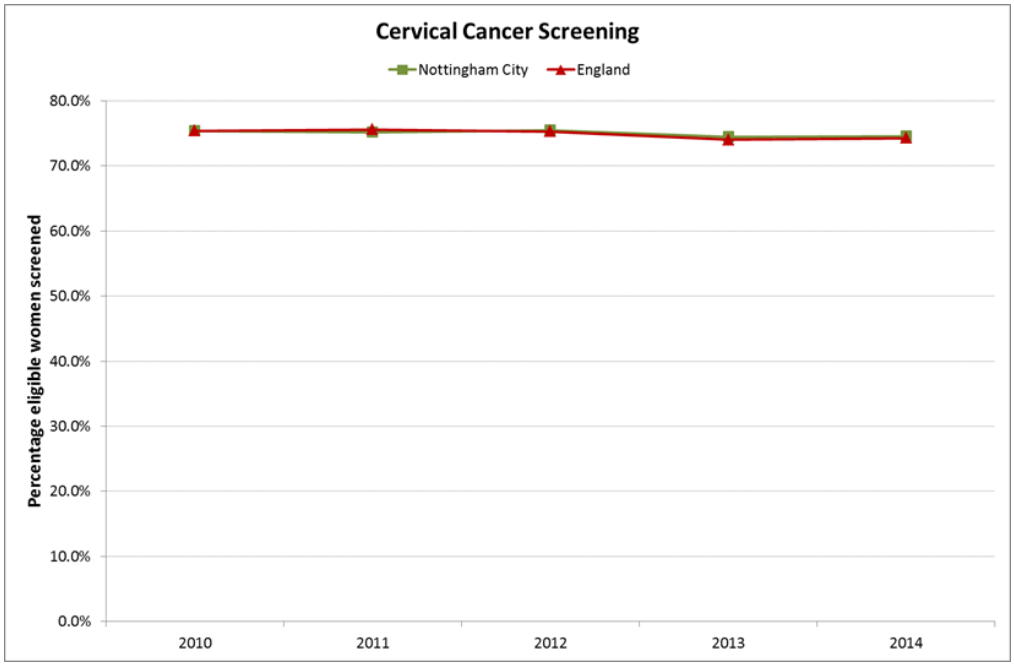
Source: General Practice Cancer Profiles, Cancer Commissioning Toolkit, National Cancer Intelligence Network, 2015.

Cervical Cancer

Cervical screening in England is offered every three years to women aged 25 to 49 years and every five years to women aged between 50 and 64. Cervical screening takes a sample of cells from a woman's cervix for analysis and aims to detect abnormal cells which can be treated before they become cancerous. Regular screening all women, conditions which might otherwise develop into invasive cancer can be identified and treated. Early detection and treatment can prevent around 75% of cervical cancers.

Figure 2.12 shows uptake rates in Nottingham are very similar to the national rate. Uptake in 2014 was slightly higher than the national figure (74.6% compared to 74.3%). Fifteen practices had significantly lower uptake than the national average, ranging from 52.2% to 72.0%. However, this does show that approximately a fifth of the eligible women are not taking up their screening appointments. Both the national and local rates exhibit a slight decline in overall coverage. There is a decreasing trend in coverage nationally; particularly in younger women aged 25-49.

Figure 2.12 The percentage of women in the population eligible for cervical screening who were screened adequately within the previous 3.5 years or 5.5 years, according to age (3.5 years for women aged 25-49 and 5.5 years for women aged 50-64) on 31 March



Females, 25-64, attending cervical screening within target period (3.5 or 5.5 year coverage, %) Source: General Practice Cancer Profiles, Cancer Commissioning Toolkit, National Cancer Intelligence Network, 2015.

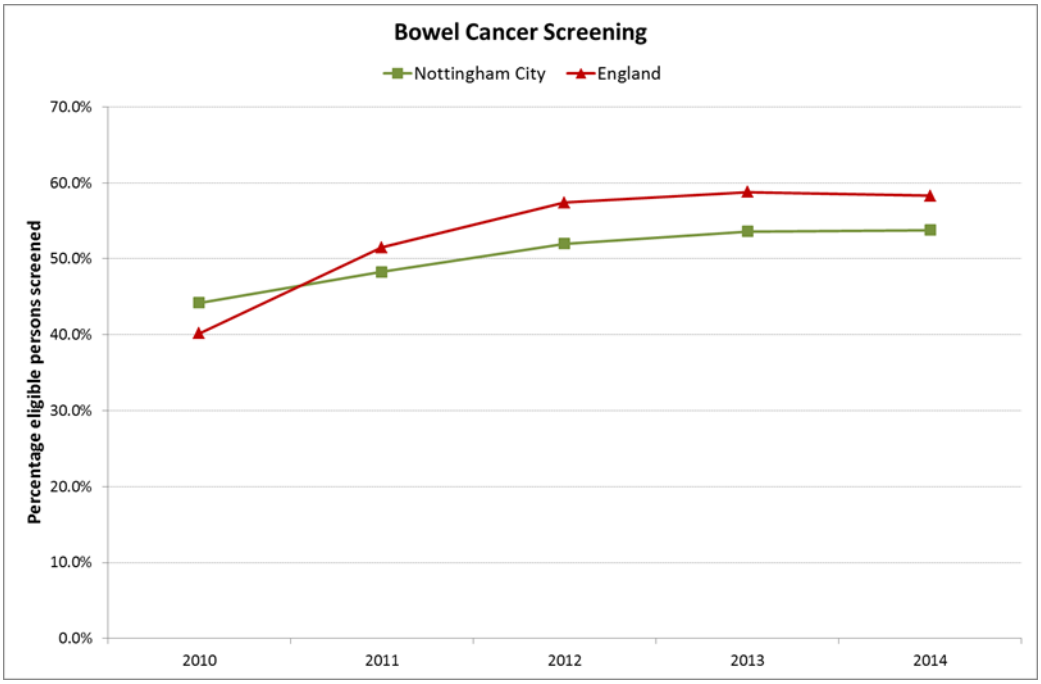
Bowel Cancer

Bowel cancer screening is offered to men and women aged between 60 and 69 on a 3 yearly basis. Bowel cancer screening can also detect polyps. These small growths in the bowel wall are not cancers, but may develop into cancers over time. Once polyps are detected they can easily be removed thus reducing the risk of bowel cancer developing.

Bowel cancer screening is the most recent addition to the national cancer screening programmes. The programme commenced in 2008 and offered screening to all people aged 60-69. Now bowel screening is being extended nationally to offer two additional rounds of screening and to include those up to age 73, and those at 57 years. Regular bowel cancer screening has been shown to reduce the risk of dying from bowel cancer by 16 per cent (DOH, 2011).

Uptake of bowel cancer screening is lower in Nottingham City compared to national uptake rates and like England, this has levelled off over the last 2 years. Nineteen practices have significantly lower uptake than the national average, with uptake ranging from 35% to 49% in these practices. These figures suggest that half the people eligible for screening are not accessing the service.

Figure 2.13 The percentage of adults in the resident population eligible for bowel screening who were screened adequately within the previous three years on 31 March



Persons, 60-69, screened for bowel cancer in last 30 months (2.5 year coverage, %)

Source: General Practice Cancer Profiles, Cancer Commissioning Toolkit, National Cancer Intelligence Network, 2015

Increasing the uptake of bowel cancer screening is a priority for Nottingham City. The CCG has invested additional resources to tackle the issue at a local level and is working with a range of partners to improve uptake across the city, projects include:

Bowel Cancer Screening Recall Project – ACE Project

The CCG, with endorsement from the GP Executive Team, has commissioned the Clinical Assessment Service to send a standardised follow up letter to patients who have received their first invitation to bowel cancer screening and not returned their test within 3 months. This letter will be sent on practice headed paper with their GP's electronic signature so that it appears to come from the practice but by using the CAS reduces the extra administrative burden on the practice.

Bowel Cancer Screening – Replacement kit fax – ACE Project

In March 2014 GPs were invited to use a new process to improve uptake of the Bowel Cancer Screening Programme which allows GPs and Practice Nurses to order replacement Bowel Screening kits on behalf of patients via fax. Practices seen a small improvement in uptake but more importantly, 4 patients who had repeatedly declined previous screening invites, went on to complete the test and an abnormal result was detected. These patients do not have cancer but are now under surveillance at NUH.

Macmillan early diagnosis programme

Nottingham City CCG successfully bid for Macmillan funding a Project Manager/Macmillan community champions to improve early diagnosis. The aim of the project is to build the capacity of local people to support members of their local community through provision of appropriate and accessible information and education to enable individuals to recognise the early symptoms of cancer so that they present earlier to their GPs where they suspect they have cancer symptoms. In 2015/16 the project will focus on improving the uptake of bowel cancer screening to improve the numbers of bowel cancers diagnosed at stage one and two.

Early Diagnosis

Late diagnosis of cancer is recognised as a major cause of the UK's relatively poor survival rates for many forms of cancer, compared with the best performing areas of the world (DOH, 2011). Local evidence shows that people in Nottingham have low levels of knowledge about the signs and symptoms of cancer and would tend to delay seeking medical help, even if they suspected that they may have a life-threatening health problem (NTU bowel cancer research project). This echoes findings in other parts of the UK, where lack of knowledge and fatalistic views on the prognosis of cancer feed into late stage at diagnosis.

2.4 Routes to diagnosis

An early diagnosis of cancer facilitates better cancer outcomes, as more treatment options are likely to be available, and the cancer tumour will be 'in situ' still, enabling highly targeted treatments. Targeted and early treatments usually result in fewer long term side effects. Improving outcomes, a strategy for cancer (2011) and the NHS 5 Year Forward View have set a clear national goal about improving early diagnosis.

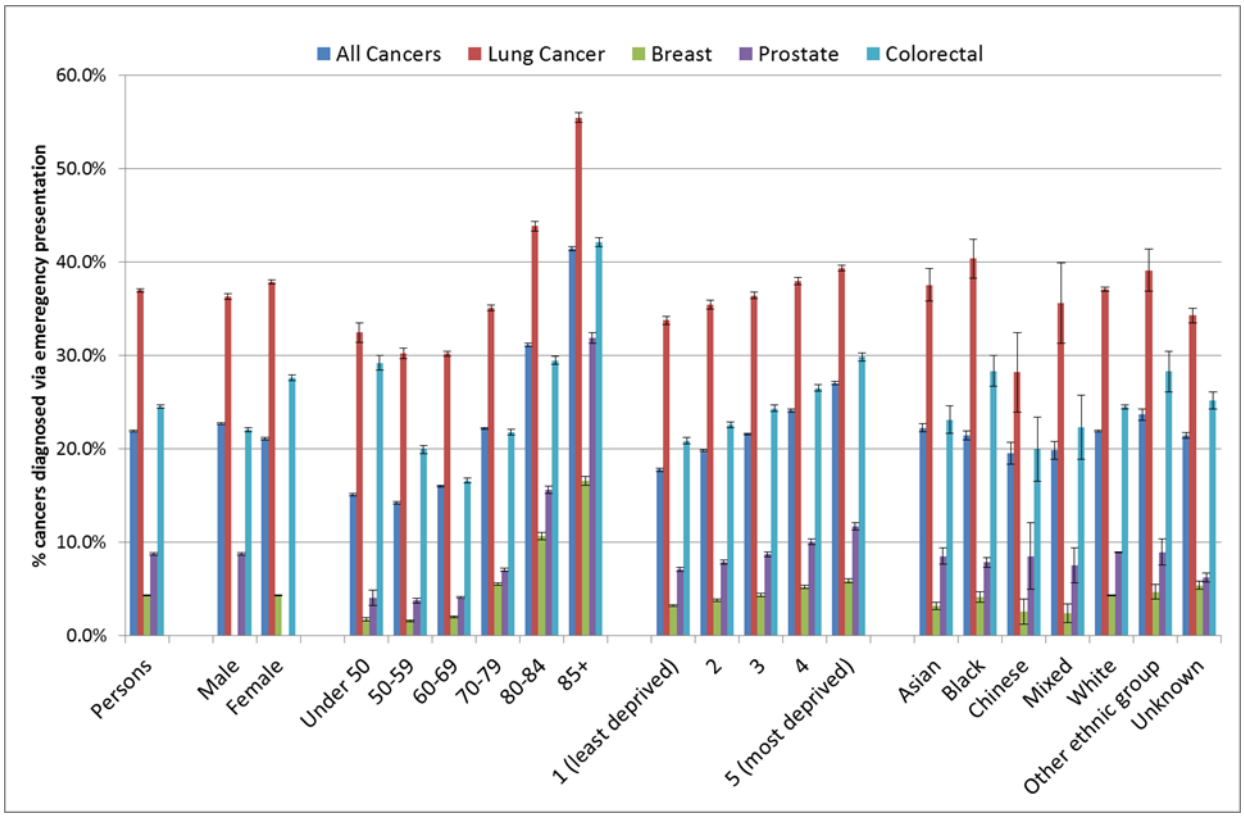
Flexible sigmoidoscopy (flexi-sig) screening

The NHS introduce flexible sigmoidoscopy (flexi-sig) screening for all men and women when they reach the age of 55 and is a way of looking at the inside of the bowel using an endoscope (a thin flexible tube that is put into the rectum/back passage and guided around the lower part of the bowel) to detect bowel polyps and cancers early before any symptoms develop. Flexi –sig was introduced in Nottingham in February 2015 and is running successfully, there are plans to increase list size and expand the service in 2016.

Diagnosis at emergency presentation

Figure 2.14 shows across all cancers and all age groups, around 22% of cancers are diagnosed at emergency presentation (2006-2013). Emergency presentation increases with age, accounting for 41% of cancers in people over 84 years. Emergency presentation may be higher in more deprived areas with 27% diagnosed by this route in the most deprived areas compared to 18% in the most affluent. The proportion of emergency presentation is similar across ethnic groups, ranging from 20% in Mixed Heritage and Chinese populations to 24% in 'Other Ethnic Group' but the differences were not significant (Routes to Diagnosis, 2006-2013, NCIN, 2015

Figure 2.14 Emergency presentation of cancer in different demographic groups in England 2006-2013



Source: Health and Social Care Information Centre Indicator Portal

The proportion of cancers diagnosed after emergency presentation varies with gender, age, deprivation and ethnicity and also by cancer type. Figure2.14 shows emergency presentation of the major cancers by different demographic characteristics. Almost half of all lung cancers and over a fifth of colorectal cancers are diagnosed after emergency presentation. This increases with age and deprivation and is significantly higher in Black ethnic groups.

Figure 2015 shows some of the variation between local CCGs in terms of whether a cancer diagnosis is undertaken through a managed or an emergency route. Research is showing that cancers picked up at emergency admissions result in the patient experiencing much poorer health and survivorship outcomes.

Figure 2.15 also suggests that there is variation across the County and City. Local intelligence suggests that patients who live in the South tend to be treated at NUH. There are likely to be a breadth of factors determining these variations, including differences among the adult populations themselves and how they seek healthcare, however healthcare organisations are now able to start scrutinising and addressing the identified issues. It is clear that national policy direction is seeking to decrease the proportion of emergency diagnosis and that geographic differences need to be addressed.

Figure 2.15 Route to Diagnosis in NHS Nottingham City and neighbouring CCGs



Source: NCIN

Figure 2.15 also shows that Nottingham City is better or similar to England for the major cancer types but, particularly for lung cancer, a high proportion of cancers are diagnosed via emergency routes. The reasons for this can be attributed to. Emergency presentation being influenced by a number of factors (including absence of symptoms, not recognising symptoms, not presenting to primary care, not presenting for screening). Increasing diagnostics may increase the proportion and rate of cancers diagnosed by managed referral routes (and hence reduce the proportion of cancer diagnosed via emergency presentation) but may not have as direct an influence on the rate (per 100, 000 population) of cancers diagnosed by emergency presentation.

Table 2.2 Proportion of cancers diagnosed after emergency admission

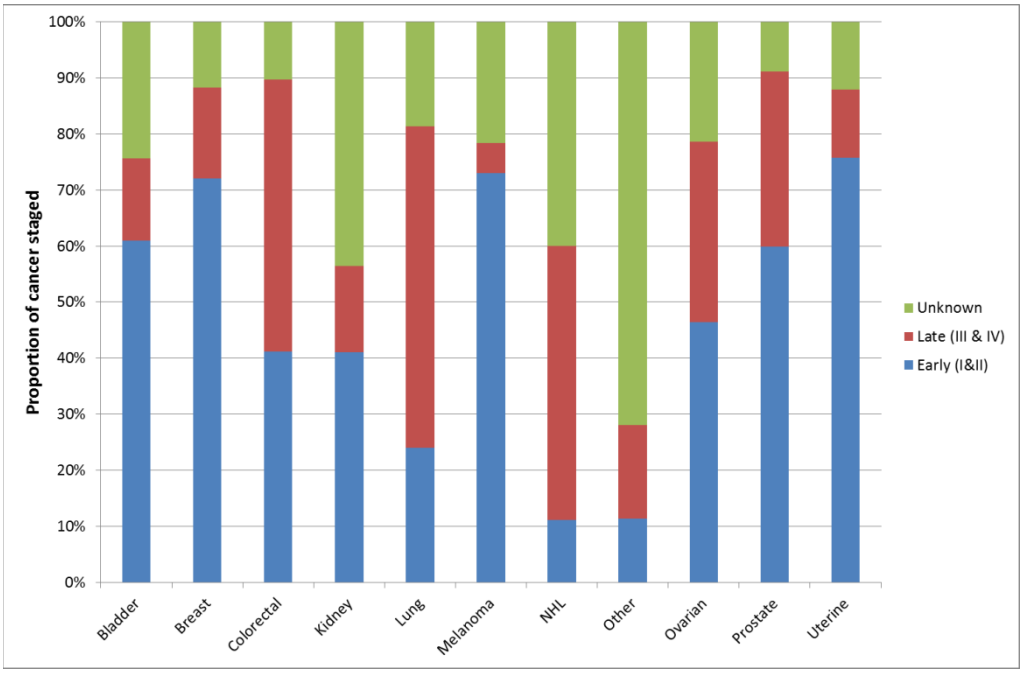
Nottingham City	% Emergency Route
Lung Cancer	33%
Breast Cancer	5%
Colorectal Cancer	20%
Prostate Cancer	10%

Table 2.2 shows the number of cancers diagnosed after emergency admission. Lung cancer is the highest followed by colorectal cancer. As previously discussed Emergency presentation is influenced by a number of factors. Therefore it is important that work continues to ensure people are know the risk factors associated with cancer and present to the GP as soon as possible and take up screening programme.

Staging

To assess the impact of early diagnosis campaigns, screening programmes and improvements in healthcare it is important to have accurate and complete detail on the stage of a cancer at diagnosis. Stage is a measure of how much a cancer has grown and spread, with later stages having poorer outcomes. The proportion of cancers classed as early staging is now a Public Health Outcomes Framework Indicator PHOF 2.19, 2013). Nottingham achieves a slightly higher proportion than England; 46.8% compared to 45.7%. Bladder, breast, skin (melanoma), prostate and uterine cancers are more likely to be diagnosed at an early stage with over 50% of these cancers being diagnosed early. Non-Hodgkin lymphoma (NHL) and lung cancer are more likely to be diagnosed in the later stages with associated poor prognosis.

Figure 2.16 Proportion of cancers diagnosed in 2013 by stage and cancer type



Routes to diagnosis will be influenced by changes outlined in recent NICE guidance and the National Cancer Strategy. These changes are likely to lead to an increase in diagnostic activity. Therefore it will be important to ensure the process for staging is effective and systematic and we continue to measure both rates of diagnosis by route and the proportion of diagnosis by route.

Macmillan Routes from Diagnosis project

Macmillan's 'Routes from Diagnosis' is a programme of research performing retrospective analysis of almost 85,000 cancer patients' interactions with the NHS in England over seven years, in an attempt to understand people's cancer journeys in detail. It demonstrates that while a significant proportion of people have on-going health and support needs; many people do not experience any side effects and have minimal support needs. Understanding and quantifying this helps the health care system to distinguish and respond to these two groups, and importantly can inform long term planning (Macmillan 2015). Information from the project is helping to inform cancer commissioning in Nottingham city whereby Macmillan are working closely with the CCG and key stakeholders on implementing the Macmillan cancer partnership which encompasses different 14 projects, see section

Direct Access CT Lung – ACE Project

Direct Access CT pilot allows GPs to refer a patient for a CT when a chest X-ray has proved inconclusive but the GP still has concerns. Following CT scanning patients are then triaged into 2WW, Respiratory services or back to the GP as appropriate. The vast majority of these patients will not have lung cancer and will not benefit from a visit to the lung cancer clinic, but will be easier to manage in primary care following a CT. Access was rolled out across Nottingham City CCG in January 2015 and then to Nottingham North and East CCG,

Nottingham West CCG and Rushcliffe CCG in July 2015. NUH are now fully engaged with the ACE programme and have been granted funding for administrative support to assist with the data submission and evaluation

Treatment

Radiotherapy and Chemotherapy are currently commissioned by NHS England. Review work is being planned at a national or local level across both and this is being managed through the Cancer Strategy Group and Working Together Programme. As such it is not currently within the scope of this HNA. The majority of Nottingham City CCG patients access services at Nottingham University Hospitals.

Survivorship

Living with and beyond cancer

The National Cancer Survivorship Initiative (NCSI) set out a clear aim in 2010 to ensure that those living with and beyond cancer would get the care and support they needed to lead as healthy and active a life as possible, for as long as possible. It identified the following five key shifts in approach in order to achieve this –

- A cultural shift in the approach to care and support for people affected by cancer to a greater focus on recovery, health and wellbeing after cancer treatment
- A shift wards assessment, information provision and personalised care planning A shift towards supported self-management A shift from a single model of clinical follow up to tailored support
- A shift from emphasis on measuring activity to a new emphasis on measuring experience and outcomes for cancer survivors
- Due to improvements in diagnosis, treatment and medical advances 50% of people diagnosed with cancer will now survive for at least 10 years. This sets cancer in a similar context to other long term conditions, reflecting the chronic nature of many consequences of cancer, its treatment, and the presence of co-morbidities.

There is a clear need to understand better the profile and needs of people living with and beyond cancer in order to grasp the opportunities to facilitate positive outcomes both in terms of direct service provision and progression into wider universal service provision to support continued health and wellbeing. The Macmillan Routes from Diagnosis project offers some insight into this picture.

Cancer And Rehabilitation Exercise (CARE) programme

CARE is a physical activity intervention run in partnership with Nottingham County Foot Ball Club and Macmillan for people who have recovered, or who are recovering from cancer. The project provides participants and their families with an environment to share stories, build strength, increase fitness levels, confidence & self-esteem. CARE is a tailored programme that meets the ability levels of the participants. Since starting in March 2015, CARE has

received 82 referrals into the programme. Loughborough University are evaluating the project and the impact it has upon the health & wellbeing of cancer survivors.

Macmillan Cancer Support

'Living Well and Beyond Cancer' is a 2 year partnership between NHS England and Macmillan Cancer Support launched in August 2014 and building on previous work by the National Cancer Survivorship Initiative. The focus of this is predominantly on ensuring all cancer patients have access to a holistic needs assessment (HNA), treatment summary (TS), cancer care review (CCR) and a patient education and support event – the recovery package (Macmillan Cancer Support 2013). The programme also promotes risk stratified pathways of post treatment management, physical activity pathways and improved management to avoid or minimise the consequences of cancer treatment. The Achieving World-Class Cancer Outcomes Strategy (Independent Cancer Taskforce 2015) states that roll-out of this model should be accelerated so that by 2020 every person with cancer will have access to elements of the Recovery Package and stratified pathways of follow-up care will be in place for the common cancers. Elements of these programmes have been implemented locally as part of the Nottingham Survivorship Programme



Source: Macmillan Cancer Support (2014)

5) Evidence of what works

Prevention

Prevention of cancer is associated to reducing risk through leading a healthy life style. However, evidence would suggest that local health improvement programmes and associated communications and social marketing messages, make explicit the link between prevention factors, cancer risk and the importance of screening. These programmes should target 'at risk' groups e.g. people living in more deprived areas, people from the BME community, men. Older people and people from protected characteristics, people with a mental illness or learning disability. All of which could reduce their risk of developing cancer and be fit for more aggressive (but more effective) cancer treatments by changing their lifestyle.

There is a varied range of NICE guidance outlining recommendations and best practice for the prevention of cancer, available at: **http://www.nice.org.uk/Guidance**

Early detection

Routes to diagnosis are influenced by changes outlined in recent NICE guidance and the National Cancer Strategy. These changes are likely to lead to an increase in referrals from primary care and an increase in diagnostic activity. It will be important to continue to measure both rates of diagnosis by route and proportion of diagnosis by route.

Early presentation with cancer symptoms is important as this maximises the chances of a positive outcome for the patient. Nationally 1 in 5 people are diagnosed via an emergency presentation, and those diagnosed that way are on average around twice as likely to die within a year compared with those diagnosed via an urgent GP referral due to their cancers being generally more advanced (DOH, 2010).

Screening

Cancer screening programmes aim to improve morbidity and mortality through early diagnosis before disease is symptomatic. However for screening programme to be successful uptake of screening needs to be meet targets set out across all there screening programmes, bowel, breast and cervical and to address health inequalities screening uptake must be consistent and equal in different groups Local data shows that overall Nottingham performs better than England in screening uptake; but there is a declining trend. There is also variation associated with deprivation; people from more deprived areas are less likely to take up the offer of screening. Therefore additional activity must be targeted to engage certain groups and communities, Nottingham CCG has implemented a range of initiatives targeted at increasing bowel cancer screening uptake across Nottingham city, see section 3 for full break down.

6) What is on the horizon?

Independent Cancer Taskforce,

A plan to overhaul treatment of the disease has been devised by the Cancer task force; the task force is made up of expert groups including NHS England, the Royal College of Surgeons and the Royal College of GPs and cancer charities. The report sets out a five-year plan for the health service, with measures to be achieved including:

- 95 per cent of patients given a definite cancer diagnosis within four weeks;
- Patients to self-refer themselves for vital tests;
- GPs given the power to order specialist tests such as CAT scans;
- An 80 per cent increase in the number of cancer tests carried out;
- Major investment in new radiotherapy equipment;
- National action plans on reducing smoking and obesity.

Under the plans, the NHS will spend up to £250 million on 126 new radiotherapy machines for patients across the country. By 2020 the waiting time for a definitive cancer diagnosis would be halved to just four weeks for at least 95 per cent of patients. Currently the target is to send patients for cancer tests within two weeks, but some wait up to eight weeks for results to be returned. It is estimated that of the additional 30,000 people who will survive cancer for at least 10 years, 11,000 of those will be through early diagnosis (Achieving World Class Cancer Outcomes 2015).

Demographics ageing population

The number of people diagnosed with cancer in England every year has more than doubled in the past 40 years (Achieving World Class Cancer Outcomes 2015).This is in part because the population has increased since the 1970s, particularly among the elderly with the trend predicted to continue. The cancer incidence rate has increased by 53%, when taking into account the changing age structure and increase in England's population. The increase in the number of new cases has placed an

BME health needs assessment

Lack of knowledge, fatalistic beliefs, and consequent late presentation appear to be more prevalent in poorer areas and among BME communities, thus mirroring the general pattern for health inequalities (Szczepura, 2005). Nottingham recognise that is essential to fully understand the health needs of the population if we are to be successful in addressing health inequalities and in response to the issues raised during the course of our meeting, we are exploring the introduction of a dedicated chapter within the JSNA on BME health needs, along with dedicated chapters relevant to other equality groups.

Macmillan Cancer pathway partnership

The Macmillan Cancer pathway partnership has a complex programme of work, the following projects are in the planning stage and are planned to be implemented in 2016/17

Prevention and diagnosis

- Nottingham University Hospitals(NUH) Lung Cancer CNS (Diagnostic pathway)
- Sherwood Forest Hospitals (SFHT) Hepatobiliary (HPB) CNS

Treatment and recovery

- Nottingham University Hospitals(NUH) Lung Cancer CNS
- NUH Acute Oncology Outreach service
- Sherwood Forest Hospitals (SFHT) Hepatobiliary (HPB) CNS
- NUH Brain Metastases Service
- NUH Children's Oncology OT
- NUH Urology CNS's x 2

Early diagnosis

Macmillan Cancer Decision Toolkit – ACE project

One of the key recommendations from the Primary Care Cancer Audit completed in 2014 was the implementation of the Macmillan electronic Cancer Decision Support Tool across City practices to reduce variance between referrals. This project has been accepted as part of the ACE programme and they are supporting us to develop and evaluate the project.

The toolkit has two capabilities:

- Risk stratification of practice lists based on read coding
- Assessment of patient during consultation

Nottingham CCG is piloting both uses of the toolkit, however there are complications with GP systems and which versions of the tool are compatible with which.

Hear me Now Prostate Cancer Clinic

In Nottingham, Prostate cancer is the 2nd most common cancer in men. Prostate cancer is three times more common in Black African and Black Caribbean men when compared to White Caucasian men. Additionally, previous research into men's knowledge of prostate cancer has shown that Black men have a lower awareness about the disease. Following evaluation of prostate cancer awareness campaigns across the country, and a Kings Fund evaluation of a pilot clinic in Newham a proposal for a community based prostate cancer clinic with social marketing aimed specifically at black African and black Caribbean men was brought to the CCG by local community leaders. Meetings/focus groups have since been held with BMECC (Black & Minority Ethnic Cancer Communities), Public health, local councillors and Nottingham City CCG and there is unanimous agreement to develop a pilot service specifically for Nottingham City.

Bowel Screening Research Project

A piece of research has been completed looking at the barriers to bowel screening uptake in BME communities by Nottingham Trent University. The recommendations from the research will help to inform commissioning and further involvement in community work with the aim of increasing the uptake of bowel cancer screening within the BME community.

Bowel cancer screening and the introduction of the Faecal Immunochemical Test (FIT)

The Board the National Screening Committee has recommended a change to the primary test used in the NHS Bowel Cancer Screening Programme from FOBt to FIT. (FIT) is a screening test for colon cancer. It tests for hidden blood in the stool, which can be an early sign of cancer. FIT only detects human blood from the lower intestines and requires just one stool sample. Research has shown it to be more accurate and have fewer false positive results than other tests. The KIT is due to replace the FOBt in 2018.

Survivorship

Survivorship – living with, and beyond cancer:

The recent Achieving World-Class Cancer Outcomes report recommends a range of work to support people living with and beyond cancer in particular accelerating the roll out of risk stratified follow-up pathways and a holistic 'recovery package' ; including a holistic needs assessment which considers the full range of personal, practical, emotional, financial and social needs in addition to medical needs. Nottingham is in a good position to respond to this as we enter the delivery phase of the McMillian living with and beyond cancer project which includes the following outcomes:

7) Local Views

National Cancer Patient Experience Programme 2014 National Survey

The National Cancer Patient Experience Survey showed positive results for Nottingham ranking in the top 20% for questions around providing information, choice, providing a point of contact and controlling side-effects of radiotherapy. Areas for improvement were around privacy and patient involvement in decision making.

Macmillan Cancer Partnership Open Space events

The central aim of the Macmillan Cancer Partnership is to put people affected by cancer at the heart of decision making when it comes to care and support for themselves or their loved one. During 2015, the Macmillan cancer partnership held a series of open space events across Nottinghamshire. The aim of the events was to engage with people who have been affected by cancer either as a current patient, a long term survivor, carer or supporter of someone with cancer. People were invited to come along to one of the events to share their experiences to help shape local cancer services. The events gathered the views and input of patients and carers to help inform the planning and delivery of future cancer services. The following four key themes emerged as priority areas for development and improvement:

1. Information and support
2. Managing my condition
3. Professional working with me
4. Work

The feedback from the open space events are informing the delivery and planning of current and future cancer services across Nottinghamshire. A programme of patient engagement is planned to support the development of Nottingham's Macmillan partnership Programme of work which will provide important context to the planning and delivery of current and future cancer services. One of the key finding from the report recommended that plans take into account the rich contribution already made by the public, patients, carers The report also recommends that investment is continued to support patient involvement as a core component of future activity. Further open space events are being planned for 2016.

The full report can be accessed at:
http://www.macmillan.org.uk/Aboutus/Healthandsocialcareprofessionals/Macmillansprogrammesandservices/MacmillanCancerPartnershipinNottingham.aspx

Increasing the uptake of Bowel Cancer Screening in BME communities in Nottingham City:

The CCG commissioned Nottingham Trent University to undertake a piece of research to investigate the barriers to bowel screening uptake in BME communities. The research was conducted by local people who were representative of Nottingham's diverse communities. The local researchers were employed and trained to undertake interviews and focus groups with local people. A total of Xx interviews and xx focus groups were carried out. The following key findings emerged from the research and are currently helping to inform commissioning and further involvement in community work with the aim of increasing the uptake of bowel cancer screening within the BME community.

- Cultural and age factors were prominent in the study. Crucially age and shorter acculturation are the most significant in this respect. Whilst there was acknowledgement that cultural and language barriers were tackled, for example through targeted media, this was sometimes seen not to be age appropriate – e.g. the use of targeted radio stations that were not reaching the age demographic.
- Religion was seen to be a factor in some cases, but religious leaders who promoted positive messages were also identified in the study.
- Language barriers persist with people who struggle with English less likely to understand the processes involved in screening.
- Disability featured particularly for those who had visual impairments.
- Men were reportedly less likely to engage in screening. It was noted that by the time women reach older age, they have had a 'legacy' of cancer screening interventions (cervical, breast, etc.).
- Personal pride and taboo associated with screening were persistent barriers.
- Personal experience or proximity to cancer served to either spur people on to take action or conversely to not take action. The latter was particularly evident in cases where late diagnosis or treatment had not resulted in a positive outcome for a relative or friend.

- A lack of awareness was identified in relation to the 'currency' of bowel cancer knowledge when compared to other types of cancer.
- A small number of participants believe that cancer kills, irrespective of treatment

What does this tell us?

8) Unmet needs and service gaps

General

- The Independent Cancer Taskforce strategy 2015-2020 contains key recommendations to transform cancer care to meet and manage future demand for services
- Involvement of communities and patients is essential to ensure services are relevant and meet the needs of individuals and communities

Prevention

- Approximately 40% of cancers are preventable through healthy lifestyles and behavioural, however, Nottingham's population has high rates of smoking, obesity and other risk factors for cancer
- Most modifiable lifestyle risk factors such as smoking and obesity are higher in areas of deprivation.
- Smoking is the single largest preventable risk factor for cancer.
- There is significant community level resource which already has a role in promoting and supporting lifestyle changes. Opportunities could be taken to explore this work more specifically in a cancer prevention context, in order to enhance incorporate cancer health messages through making every contact count.

Early diagnosis

- Public awareness of the signs and symptoms of cancer and uptake of cancer screening opportunities are key factors in increasing the early detection and presentation of cancers, yet late presentation is high amongst those living in areas of deprivation and in certain BME communities.

Screening

- In Nottingham the uptake of bowel screening is poor and cervical screening is decreasing
- There is a lack of knowledge of the reasons for poor uptake of bowel screening in different communities
- There is a lack of information which describes who does not uptake screening which hinders efforts to increase uptake

Treatment

- Increasing incidence of cancer and early diagnosis guidelines will put a significant pressure on services to investigate and treat patients within agreed timescales
- Site-specific referral pathways lead to delays in full investigation and subsequent diagnosis for patients with non-specific symptoms
- There is a lack of data regarding stage of cancer at diagnosis available from providers. This makes targeting work to increase knowledge of signs and symptoms and promote early diagnosis in populations challenging to deliver and measure

Survivorship

There is gap in services to fully support all individuals living with and beyond cancer

9) Knowledge gaps

Much of the data provided in this JSNA is based upon national information and figures. Partly this is a result of the rarity of cancer overall if considered on a population basis, and so the numbers at a local level can be small. However, there may be elements highlighted in this report for which it will be valuable to assess the local status, and for which local data should be sourced.

What should we do next?

10) Recommendations for consideration by commissioners

General

- Ensure full implementation of the Independent Cancer Taskforce strategy 2015 -2020
- Ensure community and patient engagement and involvement is a core component of commissioning and service activity

Prevention

- Support health improvement strategies and services that address key cancer risk factors in at-risk populations. This should include smoking, diet and nutrition, alcohol, physical activity and HPV vaccination programmes.
- Ensure local strategies, health improvement programmes and communications and make explicit the link between prevention factors and cancer risk; and should target 'at risk' groups
- Making Every Contact Count programmes should include clear cancer prevention, screening, symptom awareness and early diagnosis messages and be extended to include the community and NHS workforce, including screening providers and secondary care.

Early diagnosis

- Increase awareness of the signs and symptoms of cancer and promote early presentation to health services in different communities where incidence of cancer is high and late presentation is an issue.

Screening

- Increase the uptake of national cancer screening programmes – in particular bowel and cervical – working with GP practices and targeting and engaging populations groups where screening rates are lowest
- Undertake a health equity audit to understand the population and practice characteristics associated with low uptake of the bowel screening programme
- Undertake engagement work to understand the factors influencing variation in access to bowel cancer screening and early presentation to inform interventions to increase screening uptake

Treatment

- Ensure sufficient capacity within services to meet referral and treatment national targets and guidelines
- Address gaps in service pathways for patients with non-specific symptoms including the piloting of a multi-disciplinary diagnostic centre.
- Work with provider trusts and Public Health England to ensure regular and timely data regarding stage of cancer at diagnosis and route to diagnosis including ethnicity data
- Undertake a health equity analysis of route to diagnosis and staging data to identify target groups / areas to improve early diagnosis of cancer

Survivorship

- Meet the requirements set out in the Independent Cancer Taskforce strategy 2015-2020 for those living with and beyond cancer including:
    - Ensure full development and implementation of the Macmillan Cancer Support programme
    - Implementation of the recovery package in primary and community care
    - Consideration and development of recommendations from the Open Space event

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